

Appl. No. 10/737,235
Docket No. 9456
Amdt. dated March 12, 2008
Reply to Office Action mailed on December 12, 2007
Customer No. 27752

REMARKS

Claim Status

Claims 1 and 3-15 are pending in the present application. No additional claims fee is believed to be due.

Claims 12 and 13 are amended to substitute the terms MD-CD plane in place of the X-Y plane. Support for the amendment can be found, for example, on page 3, line 30 to page 4, line 1, page 12, lines 4-13, and Figures 1, 3, 4, and 5.

It is believed these changes do not involve any introduction of new matter. Consequently, entry of these changes is believed to be in order and is respectfully requested.

Rejection Under 35 U.S.C. § 102 Over Provost et al.

Claims 1, 3-5, 8, 12, and 15 were rejected under 35 U.S.C. § 102(e) over Provost and Shepard (US 2004/0157036), hereinafter referred to as Provost.

Claim 1 and Claims Dependent Thereon

The Applicants submit that Claim 1 is patentable over Provost under 35 U.S.C. §102(e) because Provost, as cited in the previous Office Action, does not disclose every element of amended Claim 1 of the present application.

The portions of Provost cited in the Office Actions do not appear to disclose discrete regions having a distinct linear orientation in the MD-CD plane and a longitudinal axis in the MD-CD plane. The Office Action of February 6, 2007, page 6, lines 5-8 identifies vertically oriented fibers in Provost as having fibers having a distinct linear orientation. Fibers oriented in the vertical direction are out of plane with the MD-CD plane and cannot be considered to be a discrete region having a distinct linear orientation in the MD-CD plane and a longitudinal axis in the MD-CD plane. Therefore, the Applicants submit that the fibers identified in the Office Action as having a linear orientation do not have linear orientation in the MD-CD plane as claimed.

The Applicant further assert that Provost, as cited, does not disclose discrete regions having a linear orientation in the MD-CD plane and a longitudinal axis in the MD-CD plane. The needle punched web of Provost is comprised of a carrier film 14 and batt 10 of fibers 12. Provost, Paragraph [0093] and Figure 1. In Provost, the batt 10 of fibers 12 is needle punched through the carrier film 14. Figure 2D of Provost shows a final structure of the batt 10 of fibers 12 and the relationship of the fibers 12 to the carrier film 14. As shown in Fig. 2D of Provost, the fibers 12 form loops protruding through the carrier film 14. Paragraph [0099] of Provost describes the loops as being "a plurality of individual loops 40 extending from a common trunk 42 trapped in film hole 38." Paragraph [0007] of Provost describes the forked needle 34 that creates the hole as having a diameter of 35 gauge or smaller. Thus, the needle 34 has a circular cross section orthogonal to the length of the needle above the forked portion of the needle. Other needle diameters are disclosed in Paragraphs [0038] and [0039] of Provost.

As shown in Fig. 2C of Provost, at one stage in formation of the looped web, the needle penetrates the carrier film 14 such that the entire forked portion of the needle is driven through the carrier film 14. Provost, Paragraph [0097], describes the carrier film 14 as having a thickness of about 0.05 mm. Provost, Paragraph [0099] describes the needle as having a total penetration depth "DP" between 2 and 5 mm. Cross sections shown in Figs. 2C and 2D of Provost show that the hole in the carrier film 14 bounds the entire circumference of the needle 34 as the needle is punched through the film carrier. Since the needle 34 has a circular cross section, the hole 38 in the film carrier should also be circular. Thus, each trunk 42 should have a circular cross section as the web material comprising the trunk 42 protrudes through a circular hole 38 (as measured in a plane parallel to the plane of the unaltered web).

The discrete regions (or loops 40) in Provost do not have a distinct linear orientation in the MD-CD plane and a longitudinal axis in the MD-CD plane. As discussed above, each trunk 42 has a circular cross section because the web material comprising the trunk protrudes through a circular hole 38. Figures 2D, 3D, 4, 7, 8, and 11 of Provost illustrate the structure of the web in profile. The loops 40 of Provost do not have a distinct linear orientation in the MD-CD plane and a longitudinal axis in the MD-CD plane. Rather, the loops 40 appear to look like trees or bushes extending from the trunk 42 and are symmetric in the MD-CD plane of the structure in Provost. As shown in

Figure 11 of Provost, each set of loops 40 extending from each trunk 42 is spaced apart from the other. Paragraph [0105] of Provost states that “[p]referably there is sufficient distance between adjacent structures so as to enable good penetration of the field of formations by a field of mating male fastener elements.” As shown in Figs. 7 and 11 of Provost, each trunk 42 and corresponding loops 40 are spaced apart from other trunks 42 and loops 40. Therefore, loops 40 do not have a distinct linear orientation in the MD-CD plane and a longitudinal axis in the MD-CD plane, as claimed in the present application.

The Office Actions further state, in regard to Provost, that circular tufts have a distinct length in the longitudinal direction. The tufts in Provost, when viewed from above, would be circular tufts. Circular tufts do not have a distinct linear orientation and a longitudinal axis in the MD-CD plane, as in Claim 1 of the present application. A circle does not have a distinct linear orientation because all points about the circumference of a circle are equidistant from the center of the circle. There is nothing distinct about any individual points in which all of the points are an equal distance from a single center point. A circle, when viewed from above, has no distinct orientation in any in-plane direction because a circle is symmetric. It is impossible to properly describe a circle as having a distinct linear orientation in the plane of the circle. There is nothing remotely linear about a circle. A circle is round. A circular tuft, as shown in Provost et al., does not anticipate Claim 1 because a circle does not have a distinct linear orientation and a longitudinal axis in the plane of the circle.

Furthermore, in the Response to Arguments section of the Office Action dated February 6, 2007, page 7, lines 13-22, the Office Action states that the linear orientation and a longitudinal axis in the MD-CD plane is provided by multiple tufts in rows in Provost. In Claim 1, each discrete region has a distinct linear orientation in the MD-CD plane and a longitudinal axis in the MD-CD plane. That is, the linear orientation in the MD-CD plane is provided by the discrete region itself, not a plurality of discrete regions as maintained in the Office Action. Thus, Provost, does not teach a discrete region having a linear orientation in the MD-CD plane and a longitudinal axis in the MD-CD plane.

Based on the above, the Applicants submit that Claim 1, as amended, is allowable over Provost. The Applicants respectfully request that the rejection of Claim 1 under 35 U.S.C. § 102(e) over Provost be withdrawn.

Appl. No. 10/737,235
Docket No. 9456
Amdt. dated March 12, 2008
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Customer No. 27752

Because Claims 3-5, 8, and 12 depend upon Claim 1, the Applicants submit that Claims 3-5, 8, and 12 are also allowable over Provost. The Applicants respectfully request that the rejections of Claims 3-5, 8, and 12 under 35 U.S.C. § 102(e) over Provost be withdrawn.

Claim 15

The Applicants submit that Claim 15 is patentable, over Provost, under 35 U.S.C. §102(e), because Provost, as cited in the Final Office Action, does not disclose every element of Claim 15 of the present application.

First, as discussed above, with respect to Claim 1, Provost, as cited in the Final Office Action, does not appear to disclose discrete regions having a distinct linear orientation in the MD-CD plane and a longitudinal axis in the MD-CD plane.

Second, Provost discloses a looped fastener product. The looped fastener product of Provost is not an absorbent core for a disposable absorbent article, as claimed in Claim 15 of the present application.

For these reasons, the Applicants submit that Claim 15 is allowable over Provost. The Applicants respectfully request that the rejection of Claim 15 be withdrawn.

Rejections Under 35 U.S.C. § 102(b) Over Sorimachi et al.

Claims 1, 3, 6-10, and 12, 13 and 15 were rejected under 35 U.S.C. § 102(b) over Sorimachi et al. (US 5,508,080). Independent Claims 1 and 15 claim discrete regions having a distinct linear orientation in the MD-CD plane and a longitudinal axis in the MD-CD plane.

Claim 1 and Claims Dependent Thereon

The Applicants submit that Claim 1 is patentable over Sorimachi et al. under 35 U.S.C. §102(e) because Sorimachi et al., as cited in the Office Action of February 6, 2007, does not disclose every element of Claim 1 of the present application. The portions of Sorimachi et al. cited in the Office Action of February 6, 2007 do not appear to disclose discrete regions having a distinct linear orientation in the MD-CD plane and a longitudinal axis in the MD-CD plane. The Office Action of February 6, 2007, page 6,

Appl. No. 10/737,235
Docket No. 9456
Amdt. dated March 12, 2008
Reply to Office Action mailed on December 12, 2007
Customer No. 27752

lines 5-8 identifies vertically oriented fibers in Sorimachi et al. as fibers having a distinct linear orientation. Fibers oriented in the vertical direction are out of plane with the MD-CD plane and cannot be considered to have a distinct linear orientation and longitudinal axis in the MD-CD plane. The Applicants submit that the fibers identified in the Office Action as having a linear orientation do not have linear orientation in the MD-CD plane as claimed.

The Applicant further reasserts below arguments made in the response of May 7, 2007 asserting that Sorimachi et al., as cited, does not disclose discrete regions having a longitudinal axis in the MD-CD plane.

The Applicants submit that Claim 1 is patentable over Sorimachi et al., as cited, under 35 U.S.C. §102(b), because Sorimachi et al. does not disclose every element of Claim 1 of the present application. The portions of Sorimachi et al. cited do not appear to disclose a composite web having discrete regions having a distinct linear orientation in the MD-CD plane and a longitudinal axis in the MD-CD plane.

The discrete regions (protrusions 22a) in Sorimachi et al. do not have a distinct linear orientation in the MD-CD plane and a longitudinal axis in the MD-CD plane. Sorimachi et al., Column 4, Lines 32-37, states that needles used to create the structure have a diameter. Therefore, the needles in Sorimachi et al. have a circular cross section orthogonal to the length of the needle. As shown in Fig. 3 and described at Column 5, Lines 58-60, of Sorimachi et al., "part of the fibrous web 22 penetrates through the nonwoven fabric sheet 23 and forms protrusions 22a thereon." Since the needles in Sorimachi et al. are circular, the protrusions 22a should have a circular cross section when viewed from the side of the structure presenting the nonwoven fabric sheet 23 to the observer. The structure of Sorimachi et al. in profile is illustrated in FIGS. 3, 4, 6, 7, 8A, and 9A-C. The protrusions 22a of Sorimachi et al. do not have a distinct linear orientation in the MD-CD plane and a longitudinal axis in the MD-CD plane. Rather, each protrusion 22a appears to look like a bump with each bump being symmetric in the MD-CD plane. The cross section illustrated in Fig. 3 (and other figures in Sorimachi et al.) show that each protrusion 22a has the same cross section and the protrusions are spaced apart from one another. Therefore, protrusions 22a in Sorimachi et al. do not have a distinct linear orientation in the MD-CD plane and a longitudinal axis in the MD-CD plane.

Appl. No. 10/737,235
Docket No. 9456
Amdt. dated March 12, 2008
Reply to Office Action mailed on December 12, 2007
Customer No. 27752

As discussed above, in regard to Provost, the Applicants submit that a circular protrusion does not have a distinct linear orientation in the MD-CD plane and a longitudinal axis in the MD-CD plane. Therefore, the Applicants submit that Sorimachi et al. does not teach a discrete region having a distinct linear orientation in the MD-CD plane and a longitudinal axis in the MD-CD plane.

For the reasons set forth above, the Applicants submit that Claim 1, as amended, is allowable over Sorimachi et al. The Applicants respectfully request that the rejection of Claim 1 under 35 U.S.C. § 102(b) be withdrawn. Because Claims 3, 6-10, 12, and 13 depend upon Claim 1, the Applicants submit that Claims 3, 6-10, 12, and 13 are also allowable over Sorimachi et al. The Applicants respectfully request that the rejections of Claims 3, 6-10, 12, and 13, under 35 U.S.C. § 102(b), be withdrawn.

Claim 15

The Applicants submit that Claim 15 is patentable, over Sorimachi et al., under 35 U.S.C. § 102(b), because Sorimachi et al., as cited, does not disclose every element of Claim 15 of the present application.

First, as discussed above, with respect to Claim 1 and Sorimachi et al., Sorimachi et al., as cited, does not appear to disclose discrete regions having a distinct linear orientation in the MD-CD plane and a longitudinal axis in the MD-CD plane.

Second, Claim 15 claims an absorbent core for a disposable absorbent article. Sorimachi et al. discloses a flexible laminated surface material for vehicle interiors and building interiors. The flexible laminated surface material for vehicle interiors and building interiors in Sorimachi et al. is not an absorbent core for a disposable absorbent article.

For these reasons, the Applicants submit that Claim 15 is allowable over Sorimachi et al. The Applicants respectfully request that the rejection of Claim 15 be withdrawn.

Appl. No. 10/737,235
Docket No. 9456
Amdt. dated March 12, 2008
Reply to Office Action mailed on December 12, 2007
Customer No. 27752

Rejection Under 35 U.S.C. § 102(b) Over Mende (U.S. 5,180,620)

Claims 1, 4, 5, 8, and 12-15 were rejected under 35 U.S.C. § 102(b) as being anticipated by Mende (U.S. Patent No. 5,180,620). The Applicants submit that Mende, as cited, does not disclose a first fibrous layer comprising a plurality of discrete regions of fiber reorientation comprising fibers having portions reoriented in a direction substantially orthogonal to the MD-CD plane, as in independent claims 1, 14, and 15. In Mende, as cited, none of the fibers are reoriented in a direction substantially orthogonal to the MD-CD plane. In Mende, as cited, the laminate is created by laying the resin film 1b on one side of a porous plate, reducing the pressure on the opposing side, and drawing the resin film 1b through air passage holes 12a of the porous plate. Then filaments are blown against the resin film 1b to form the cloth layer 1c with some of the filaments drawn into the cylindrical film projections 2c. Mende Column 14, Line 63 to Column 15, Line 14. Thus, the laminate has the configuration illustrated in FIGS. 30 and 31. Mende does not disclose that the laminate comprises a plurality of discrete regions of fiber reorientation comprising a plurality of fibers having portions reoriented in a direction substantially orthogonal to the MD-CD plane. No regions of fiber reorientation are present in Mende because the laminate shown in FIGS. 30 and 31 has the desired structure without providing regions of the laminate having fiber reorientation. Thus, Mende does not disclose a first fibrous layer comprising a plurality of discrete regions of fiber reorientation comprising fibers having portions reoriented in a direction substantially orthogonal to the MD-CD plane, as in Claims 1, 14, and 15.

Furthermore, Mende, as cited in the Office Action, does not disclose a laminate web having a machine direction and a cross machine direction defining a MD-CD plane comprising discrete regions having a distinct linear orientation and a longitudinal axis in the MD-CD plane. In Mende, the projections are “cylindrical projections 2”. See e.g. Column 6, Line 50, Column 7, Lines 3-4, Column 7, Line 5, Column 7, Line 17, and many additional locations throughout Mende. The Office Action incorrectly states that Mende discloses that the projections can be circular, oval, square or any other appropriate shape, citing to Column 6, Lines 53-56. The portions of Mende cited state that in the forming structure “holes 1a are not necessarily circular and may be oval, square or of any other appropriate shape.” (emphasis added). Claim 1 is related to the shape of the

Appl. No. 10/737,235
Docket No. 9456
Amdt. dated March 12, 2008
Reply to Office Action mailed on December 12, 2007
Customer No. 27752

discrete regions, not the shape of a hole in a forming structure. Thus, the portion cited in the Office Action does not provide a proper basis for a rejection based on anticipation.

Furthermore, when viewed from above, cylindrical projections 2 would have a circular cross section. As discussed above, in regard to Provost, the Applicants submit that a circular projection does not have a linear orientation defining a longitudinal axis in the MD-CD plane.

Based on the above, the Applicants submit that Claims 1, 14, and 15 are allowable over Mende. The Applicants request that the rejections of Claims 1, 14, and 15 be withdrawn.

Claims 4, 5, 8, 12, and 13 depend upon Claim 1. As discussed above, the Applicants submit that Claim 1 is allowable. Therefore the Applicants submit that Claims 4, 8, 12, and 13 are also allowable and the Applicants respectfully request that the rejections of these claims be withdrawn.

Rejection Under 35 U.S.C. § 103(a) Over Sorimachi et al. (U.S. Patent No. 5,508,080) in View of Kotek et al. (U.S. Patent No. 6,120,718)

Claim 11 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Sorimachi et al. (US 5,508,080) in view of Kotek et al. (US 6,120,718). Claim 11 depends upon Claim 1. As discussed above, the Applicants submit that Claim 1 is allowable. Therefore, Claim 11 is also allowable. The Applicants respectfully request that the rejection of Claim 11, under 35 U.S.C. § 103(a), be withdrawn.

Rejection Under 35 U.S.C. § 103(a) Over Hansson (U.S. Patent No. 6,048,600)

Claims 1, 3-11, and 13-15 were rejected under 35 U.S.C. § 103(a) over Hansson. The Applicants submit that Hansson, as cited, fails to establish a *prima facie* case of obviousness because Hansson, as cited, does not teach, suggest, or motivate one skilled in the art to provide a first fibrous layer comprising a plurality of discrete regions of fiber reorientation comprising fibers having portions reoriented in a direction substantially orthogonal to the MD-CD plane, as in independent claims 1, 14, and 15.

Appl. No. 10/737,235
Docket No. 9456
Amdt. dated March 12, 2008
Reply to Office Action mailed on December 12, 2007
Customer No. 27752

In Hansson, none of the fibers are reoriented in a direction substantially orthogonal to the MD-CD plane. The casings sheet in Hansson is formed by attaching a corrugated layer 1 to a second layer 5. Hansson, Col. 4, Lines 24 and FIG. 4. The openings 6 are cut into the casing sheet by cutters 24. Hansson, Col. 4, Lines 50-64 and FIG. 4. Thus, the laminate has the configuration illustrated in FIGS. 1 and 2. Hansson does not disclose that the laminate comprises a plurality of discrete regions of fiber reorientation comprising a plurality of discrete regions of fiber reorientation in a direction substantially orthogonal to the MD-CD plane. No regions of fiber reorientation are present in Hansson because the laminate shown in FIG. 1 has the desired structure without providing regions of the laminate having fiber reorientation. Thus, Hansson does not disclose a first fibrous layer comprising a plurality of discrete regions of fiber reorientation comprising fibers having portions reoriented in a direction substantially orthogonal to the MD-CD plane.

Based on the above, the Applicants submit that Claims 1, 14, and 15 are allowable over Hansson. The Applicants request that the rejections of Claims 1, 14, and 15 be withdrawn.

Claims 3-11 and 13 depend upon Claim 1. As discussed above, the Applicants submit that Claim 1 is allowable. Therefore the Applicants submit that Claims 3-11 and 13 are also allowable and the Applicants respectfully request that the rejections of these claims be withdrawn.

Double Patenting Rejections

As stated in the Reply After 1st Office Action filed December 22, 2005, Applicants agree to submit all necessary terminal disclaimers upon indication of allowable subject matter.

Conclusion

This response represents an earnest effort to place the present application in proper form and to distinguish the invention as claimed from the applied references. In view of the foregoing, entry of the amendments presented herein, reconsideration of this application, and allowance of the pending claims are respectfully requested.

Appl. No. 10/737,235
Docket No. 9456
Amdt. dated March 12, 2008
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Customer No. 27752

Respectfully submitted,

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